

CLAIMS

What is claimed is:

1. A method comprising:
- transmitting a communication stream with a first proportion of voice signals to data signals when a telephone coupled to receive the communication stream is in a first state, wherein the voice signal includes both audio and control signals; and
- transmitting the communication stream with a second proportion of voice signals to data signals when the telephone is in a second state, wherein the voice signal includes control signals and no audio signals.
2. The method of claim 1 wherein the communication stream is transmitted according to a digital subscriber line (DSL) protocol.
3. The method of claim 2 wherein the DSL protocol comprises asynchronous DSL (ADSL).
4. The method of claim 1 wherein the first proportion comprises an 8-bit voice signal transmitted at 8 kHz and the second proportion comprises a 1-bit voice signal transmitted at 8 kHz.
5. The method of claim 1 further comprising:
- receiving a second communication stream with the first proportion of voice signals to data signals when the telephone is in the first state; and

4 receiving the second communication stream with the second proportion of voice
5 signals to data signals when the telephone is in the second state.

1 6. An article comprising a medium accessible by one or more electronic
2 devices, the medium to provide content that, when accessed by the one or more electronic
3 devices, cause the one or more electronic devices to:

4 transmit a communication stream with a first proportion of voice signals to data
5 signals when a telephone coupled to receive the communication stream is in a first state,
6 wherein the voice signal comprises both sampled audio and control signals; and

7 transmit the communication stream with a second proportion of voice signals to
8 data signals when the telephone is in a second state, wherein the voice signal includes
9 control signals and no audio signals.

1 7. The article of claim 6 wherein the communication stream is transmitted
2 according to a digital subscriber line (DSL) protocol.

1 8. The article of claim 7 wherein the DSL protocol comprises asynchronous
2 DSL.

1 9. The article of claim 6 wherein the first proportion comprises an 8-bit voice
2 signal transmitted at 8 kHz and the second proportion comprises a 1-bit voice signal
3 transmitted at 8 kHz.

00667047 092801
T08260 2402960

1 10. The article of claim 6 further comprising content that, when accessed by
2 the one or more electronic devices, cause the one or more electronic devices to:
3 receive a second communication stream with the first proportion of voice signals
4 to data signals when the telephone is in the first state; and
5 receive the second communication stream with the second proportion of voice
6 signals to data signals when the telephone is in the second state.

1 11. A propagated signal that carries content to one or more electronic devices,
2 the propagated signal comprising a communication stream with a first proportion of voice
3 signals to data signals when a telephone coupled to receive the communication stream is
4 in a first state, wherein the voice signal comprises both sampled audio and control signals
5 and the communication having a second proportion of voice signals to data signals when
6 the telephone is in a second state, wherein the voice signal includes control signals and no
7 audio signals.

1 12. The propagated signal of claim 11 wherein the communication stream is
2 transmitted according to a digital subscriber line (DSL) protocol.

1 13. The propagated signal of claim 12 wherein the DSL protocol comprises
2 asynchronous DSL.

1 14. The propagated signal of claim 11 wherein the first proportion comprises
2 an 8-bit voice signal transmitted at 8 kHz and the second proportion comprises a 1-bit
3 voice signal transmitted at 8 kHz.

1 15. The propagated signal of claim 11 further comprising content that, when
2 accessed by the one or more electronic devices, cause the one or more electronic devices
3 to:

4 receive a second communication stream with the first proportion of voice signals
5 to data signals when the telephone is in the first state; and

6 receive the second communication stream with the second proportion of voice
7 signals to data signals when the telephone is in the second state.

1 16. An apparatus comprising:

2 a control circuit coupled to a telephone to determine whether the telephone is in a
3 first state or in a second state, the control signal to generate one or more control signals to
4 indicate the state of the telephone;

5 a framer coupled to the control circuit and to the telephone, the framer to allot a
6 first bandwidth for telephone communication when the telephone is in the first state and
7 to allot a second bandwidth for telephone communication when the telephone is in the
8 second state.

1 17. The apparatus of claim 16 wherein the first bandwidth comprises 8
2 kbit/sec and the second bandwidth comprises 64 kbit/sec.

09967047-092801

1 18. The apparatus of claim 16 wherein the first state is an on-hook state and
2 the second state is an off-hook state.

1 19. The apparatus of claim 16 wherein the framer further comprises:
2 a first multiplexor to receive signals from the telephone, the first multiplexor to
3 pass the full signals from the telephone when the telephone is in the second state and to
4 pass reduced signals when the telephone is in the first state; and
5 a second multiplexor coupled to receive signals passed by the first multiplexor,
6 the second multiplexor to pass the signals from the first multiplexor and to pass
7 additional data signals, the additional data signals consuming a first bandwidth when the
8 telephone is in the first state and a second bandwidth when the telephone is in the second
9 state.

1 20. An apparatus comprising:
2 a control circuit coupled to a telephone to determine whether the telephone is in a
3 first state or in a second state, the control signal to generate one or more control signals to
4 indicate the state of the telephone; and
5 a framer to receive signals from a digital subscriber line (DSL) link, the framer to
6 allot a first bandwidth to the telephone when the telephone is in the first state and to allot
7 a second bandwidth to the telephone when the telephone is in the second state.

096704-09301
T03260-4029560

1 21. The apparatus of claim 20 wherein the first bandwidth comprises 8
2 kbits/sec and the second bandwidth comprises 64 kbits/sec.

1 22. The apparatus of claim 20 wherein the first state is an on-hook state and
2 the second state is an off-hook state.

1 23. The apparatus of claim 20 wherein the framer further comprises:
2 a first demultiplexor to pass signals from the DSL link, the signals from the DSL
3 link including data signals and voice signals, the data signals consuming a first bandwidth
4 when the telephone is in the first state and a second bandwidth when the telephone is in
5 the second state; and
6 a second demultiplexor coupled to receive signals passed by the first
7 demultiplexor, the second demultiplexor to pass the signals from the first demultiplexor
8 and to pass the full signals to the telephone when the telephone is in the second state and
9 to pass reduced signals when the telephone is in the first state.

1 24. A framer comprising circuitry to pass signals between a digital subscriber
2 line (DSL) link, a telephone and one or more data processing devices, the signals
3 including data signals and voice signals, the framer to allot a first bandwidth to a
4 telephone coupled to the framer when the telephone is in an off-hook condition and the
5 framer to allot a second bandwidth to the telephone when the telephone is in an on-hook
6 condition.

T 03250" 24029650

1 25. The framer of claim 24 wherein the first bandwidth is greater than the
2 second bandwidth.

1 26. The framer of claim 24 wherein the first bandwidth comprises 64 kbit/sec.

1 27. The framer of claim 26 wherein the second bandwidth comprises 8
2 kbit/sec.

1 28. The framer of claim 24 further comprising:
2 a first multiplexor to pass a complete voice channel when the telephone is in the
3 off-hook condition and to pass less than the complete voice channel when the telephone
4 is in the on-hook condition;

5 a second multiplexor coupled to receive an output of the first multiplexor, the
6 second multiplexor to pass variable amounts of data signal based on the condition of the
7 telephone;

8 a first demultiplexor to pass variable amounts of data signal based on the
9 condition of the telephone; and

10 a second demultiplexor coupled to receive an output of the first demultiplexor, the
11 second demultiplexor to pass a complete voice channel when the telephone is in the off-
12 hook condition and to pass less than the complete voice channel when the telephone is in
13 the on-hook condition.